

A D D R E S S

DELIVERED AT THE OPENING OF

THE STUYVESANT INSTITUTE

OF THE

CITY OF NEW-YORK,

ON THE

4th NOVEMBER, 1837,

BY

SAMUEL WARD, JUNIOR.

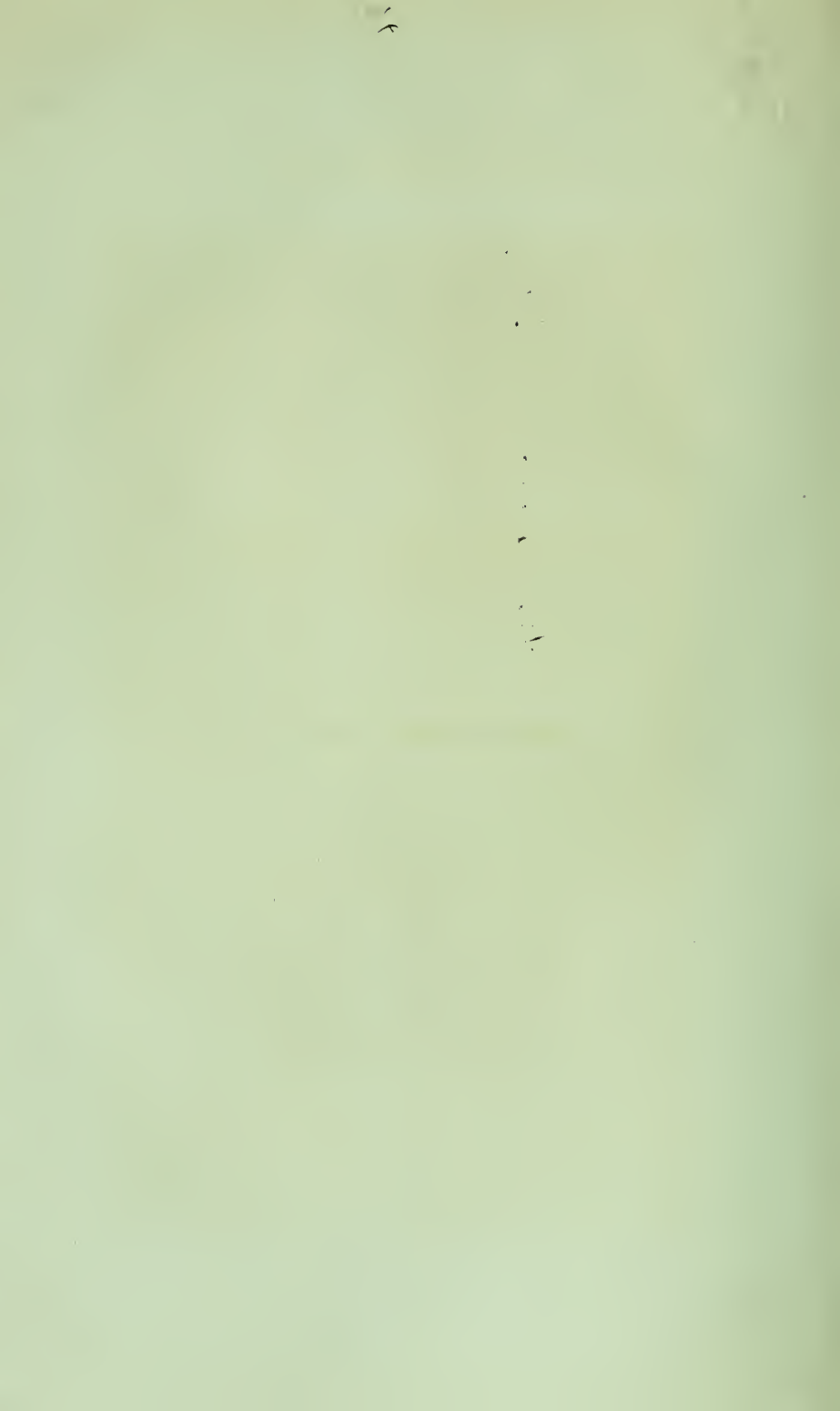


NEW-YORK:

PUBLISHED BY THE STUYVESANT INSTITUTE.

GEO. F. HOPKINS & SON, Printers.

1837.



ADDRESS

DELIVERED AT THE OPENING OF

THE STUYVESANT INSTITUTE

OF THE

CITY OF NEW-YORK,

ON THE

4th NOVEMBER, 1837,



BY

SAMUEL WARD, JUNIOR.

NEW-YORK:

4

PUBLISHED BY THE STUYVESANT INSTITUTE.

GEO. F. HOPKINS & SON, Printers.

1837.

LC 6301
.S95

A D D R E S S .



GENTLEMEN OF THE STUYVESANT INSTITUTE :

WE are assembled to dedicate these Halls to Science ; and you have chosen to represent you, on this interesting occasion, one better fitted to swing an ardent censer at the shrine of their tutelar deity than to officiate in the more dignified rites of an opening ceremony. To the deep sense of an unexpected honour are joined in my bosom emotions of pride that there should have been erected in this city, by the voluntary offerings of its prosperous inhabitants, another edifice destined to combine the materials with the opportunities of human enlightenment.

I rejoice at the *construction* of this fabric, because, in the perseverance and confidence by which from a slender beginning, and throughout times most unpropitious, it has been accom-

plished, may be seen the elements of that increasing strength, and the germ of that enduring vitality by which an institution continues to thrive long after its generous founders have ceased to enter its portals. Such an edifice may be viewed as a *monument*; and, gentlemen, by monuments in some degree, after centuries have elapsed, may be traced, the legend of a nation's greatness, its arts, its letters, and its civilization.

From the earliest ages, conscious of a perishable existence, man has striven to perpetuate in marble or on canvass the remembrance of great events. It was easier to impress the images of these upon the material world, than to immortalize them in song or story. The temple and the triumphal arch once erected,—a statue was placed in the niche of the one, and a name, the deed and the day, were inscribed upon the face of the other. Then, a thousand lyres sang pœans to the god, and deified the hero. Centuries pass on, and history rebuilds the temple, and substitutes itself for the monument.

The old world is filled with such memorials of by-gone grandeur,—from the Colossal enigmas of the land of the Ptolemies to the classic models of a later day ; from the unrivalled temples of ancient Greece, to those cloud-capt cathedrals of the middle ages, where the richly embroidered exterior, and the paintings that tapestry the inner walls, testify to the fervour of a piety that in our day has assumed a new and less ostentatious form ; and from the triumphal arch of Trajan at Rome, to that stupendous structure commemorative of modern pride, which, recently completed by acclamation in the capitol of France, seems only the funeral pyre of the armies whose victories it records.*

But intellectual greatness requires no material mementos of its power, which is rather of to-morrow, than of yesterday. The name that consecrates the groves of Academe awakens a far nobler train of thought than do the grandest

* The *arc de triomphe de l'Étoile*.

monuments of antiquity. The one proclaims the lofty career of man, and fills the soul with hope and with a consciousness of its destiny, while the others remind us of our physical insignificance, and tell us the inevitable doom of humanity. But, besides the debt of reverence due from us to the sages of the past, for their legacies of wisdom and of science, we are bound to increase the hereditary stock, and to hand down to posterity proportionate claims to its gratitude and esteem. For this purpose we need build neither pyramid nor triumphal arch;—in the spacious and serviceable edifice around us, and in the desire for the advancement of learning its erection indicates, are the happiest evidences that we are at length preparing to discharge our obligation.

If the short but eventful period the annals of our country embrace, exhibit few contributions to the general stock of knowledge, and if no other than the science of practical education has hitherto almost solely engrossed our attention, it is that we are the children of but one generation,—of a generation,

which, having laid, in the broad principles of human liberty, the foundations of our political edifice, has bequeathed to its posterity the grateful task of crowning the work so begun, with a superstructure of social virtues, cemented, fortified, and adorned by justice, by science, and by art. To the old world, we have given in exchange for the first materials of civilization, the produce of our soil, and the inventions to which its culture and vast extent have given birth. There are, indeed, illustrious examples among us of a similar return in literature and in science, for the intellectual blessings we have received at its hands ; but these are scattered sparsely throughout our land, and seem to await a bond of union to connect them in one compact body, when the sympathies of the whole, aspiring to the higher dignities of intelligence, shall create a medium for the transmission of its great results. If science and letters are indispensable to the moral grandeur of a nation, (and that they are who can doubt?) it is the duty of the enlightened, not only to hail their advent, but to prepare the way for their reception. In this, all

may and should be instrumental; both the rising generation, and those by whose authority and counsel, they are swayed and guided. The former, readily incited, are dependent upon the latter for opportunity. *They should not depend in vain.*

If, however, those inclined to literature, or endowed with the zeal and patient industry by which alone the domain of science can be enriched, have no other resource, they can at least emulate the independent spirit of their forefathers — emancipate themselves from the influence of the universal pursuit, — the *sacra fames* of gain, and strike out boldly in a path, rugged at the out-set, but by pursuing which, they may reap the laurels and the emoluments of fame. Seldom in the most righteous cause, do individuals venture singly to encounter the prejudices of the mass; but the rallying of a few around the banner of letters soon collects followers and commands respect. It requires more virtue to immolate avarice to learning than to pursue an ancestral calling; and science once dignified with the attributes of an indepen-

dent vocation, the many will be the first to patronize and to appreciate it. In some countries of Europe, a pursuit is handed down like a title of nobility; each succeeding generation adding its quarter to the hereditary escutcheon. Even the executioner arrogates to himself dignity from his forefathers of the axe. In this manner, certain castes have been preserved, and the objects of each graduated by its position in the social scale. With us, however, whilst the children of the less wealthy naturally aspire to an independence, it is often the *sole* object of those who inherit this to swell it to opulence.

The mines of commercial wealth being equally accessible to all, the wisdom which developed them should now point out some higher goal to those abundantly rich, else we may fall victims, as was but yesterday our danger, to the luxuries and consequent vices that spring up from wealth, unaccompanied by intellectual refinement — and thus decay, as a people, like the great republics of old, before we shall have ripened into the full maturity of a nation.

To counteract this, we should cherish an ardent love for science in the abstract, as in the application ; we should nurture the offsprings of a nascent literature ; and we should honour the philosopher and love the poet in the same degree as we appreciate the historian, and venerate the law-giver. Gliding years will soon bereave us of those more muscular mental faculties that commerce exercises ; and then, conscious of an error, we may be removed from its causes by too wide an interval even to ascertain — much less counteract them. Let us then anticipate and provide against an evil it may be hereafter too late to remedy, by according to the votaries of literature and of science, a sympathy which, while it penetrates as a sunbeam the cheerless closet of the student, illumining the abstruse page, and warming the heart, inspires him with fresh energy to pursue his vocation without unfitting him, as some vainly imagine, for the emergencies of life. There are instances where the philosopher and the poet leaving their respective spheres, have assumed with courage the defence of State. ARCHIMEDES protected Syracuse, and

TYRTÆUS led the Lacedemonians to victory ; while, in our day, FICHTE the transcendentalist, and KÖRNER the poet, were first among the patriots who, in Germany, resisted the French invasion, and a FRANKLIN, a HUMBOLDT and a LINDENAU have shone brightly in the councils of State.

And how are we to further this so desirable advancement of learning ? Not by national endowments, which, however desirable in themselves, are at variance with the spirit of our institutions. Not by state patronage, which has in some cases proved inadequate to the requirements of a most important profession. But by ASSOCIATION, by the joint efforts of the prosperous, and the educated,— efforts in which each individual may happily lend essential aid towards improving the actual and prospective welfare of the whole. Let societies be formed after the plan of the states which compose our confederacy ; and, as these acquire power, they will become telegraphic points for the interchange and diffusion of great and new truths in science, in letters or in polity. Exerci-

sing a wholesome influence in their respective localities, they will afford protection and resources to the meritorious and the aspiring, and thus gradually render abstract learning independent of the absorbing cares of life, and assign to it its true value in the eyes of men. Such bodies will constitute one great confederation of letters, each representing its own peculiarities and special tendencies, while in the union of all there will be glory and utility.

The present association is then conceived in the truest spirit of our institutions. With increasing means, an extensive library, and the apparatus of philosophical experiment it will afford facilities to the student and to the lecturer, while, through the medium of public courses, those disposed to cultivate and to contribute to intellectual advancement, may learn and appreciate the modes by which this is accomplished. That these resources should be augmented, and that results so desirable should be attained, depend solely upon the numbers impelled to pursue or to embellish the

higher walks of intelligence. First and foremost among the members of this community stands the liberal and enlightened merchant. His example is the precept of the rising generation — it renders custom a law, and gives its bias to public opinion. The wealthy and intelligent representatives of European commerce, have been recently destined to take an important part in the troubles as in the prosperities of the old world. **LAFITTE** and **CASIMIR PERIER**, — the one immolating himself to the revolution of July, and the other sacrificing in turn the revolution to the permanent tranquility of France, — are striking illustrations of the influence of commerce, while despotic governments owning the supremacy of a **ROTHSCHILD**, testify to the power of mercantile industry over the welfare of society. With us, setting aside the political emergencies, to meet which, the energies of the merchant are ever at the service of his country, and the financial embarrassments, where, in extricating himself he has displayed equal skill and integrity — the mercantile interests heretofore personifying one huge and unexampled pros-

perity, may, in like manner, henceforth, represent one vast and aspiring intelligence. Though called for in the active defence of state, and though paralyzed for the present in the effort to create a standard by which enterprise shall be regulated—the exertions of the merchant may still effect a revolution in the cause of American letters—thus sowing seed which shall spring up and bear wholesome fruits alike in the successes or the reverses of the future, and founding those institutions which alone are wanting to render us the equal of Europe in thought and word, as we are now in action. This fulfilling, the world may contemplate a novel and glorious spectacle—the civilised representatives of the human race—aiming at the same magnificent result—the elevation of mankind—the *inhabitants of the new world, using their best energies to become as enlightened as they are free, and their transatlantic brethren striving with kindred vigour to become as free as they are enlightened.*

There is certainly a sufficient reason for our hitherto comparatively slight advancement in the

higher walks of mind, in the numerous wants of a recent settlement, and in the requirements of an unprovided people. The necessities of physical man, must be supplied, ere we look for those refinements of intellect, which are the concomitants of ease and wealth. Science, although it claims to be the expounder of nature, does not begin to exert its full sway over a people, until art has provided them with the means, and placed them in a condition of at least temporary independence. This once ensured, a duty which, until then, has been alike imperative with all, now devolves upon government. Legislation enacts the wise laws which encourage industry, by enhancing its fruits; and intelligence stepping forth from the ranks, devises the means of their education. The intellect of a nation has first to mount a steep ascent over obstacles, frequent, and at times, apparently insurmountable, having in view a circumscribed object, as the goal of its desires. Reaching that, it soon finds before it vast fields of truth to be explored, far beyond its former conceptions. Like the curious traveller, who fixes on

some great elevation as an object to be attained, and who, in his attempt, climbs the rugged cliff or mouldering precipice, trembling beneath his step, and after his toil and danger discovers nothing on the height itself but a spot, from whence, to view the broad expanse, the variety and the beauty, the far-stretched territory, and the illimitable streams of the land he has left, and then, for the first time, perceives the grandeur of nature, and feels the divinity within prompting him to further research.

In the story of our past, little then will be found to discourage the hopes I have ventured to put forth; and in our present condition, and the prospect before us, we may also see, that upon the government of this country has devolved a sufficiently responsible task. The work of intellectual improvement is, therefore, to be achieved like every great and good work hitherto accomplished among us by all. In turning to the page of history, we find republican Athens originating science, letters and art, of which the perfection has been handed down, through succeeding ages, with the

traditions of ancient heroism—while erudite Alexandria, under the patronage of the Ptolemies, strove in vain to equal the productions of unfettered Attic genius. Does not this evince the extent to which science and letters may flourish beneath the sunshine of liberty? Again, in the Florentine annals, we learn of the revival of art and of letters effected by the genius, the taste, and the liberality of a family of merchants—the MEDICI. Does not this again prove how materially and how nobly the merchant may contribute to refine the taste and to elevate the intelligence of his country?

When speaking of the merchant, I would not exclude as subjects of the same remarks, those who are not directly engaged in mercantile pursuits, and yet who constitute parts of the same community. It may be allowed to give the word a more extended meaning, on the present occasion, than a correct etymology would imply. The Atlantic States of this great confederacy may be considered a country of merchants. The mechanic,

who gives form, solidity and capability to the argosy, or who rears the spacious warehouse that receives its treasures — the capatlist, who lends the gains which a life of industry, frugality, and prudent management has amassed, to the use of the more enterprising — the jurist who expounds the law, or who contributes the light of the knowledge obtained by persevering study, and careful observation to reveal the path of justice and equity, darkened by the conflicting interests, and complicated circumstances of trade — in short, all who labour for that individual independence which is the surest basis of civil liberty, form each as essential a constituent of the great commercial family, as he who consigns his products or imports his merchandise. And the numerous instances about us of individual aggrandizement, in all of these pursuits, are so many proofs that in each it may be attained, and is in all attributable to the advantages of commerce.

From the present aspect of Europe, and a glance at the actual and previous condition of

science and letters, as endowed and cultivated there, we may derive an instructive lesson. The phenomenon by which, despite their peculiarities, so many races of divers character, and actuated by conflicting interests, live, with a solitary exception, in real and prospective peace at home and abroad, may, in a measure, be accounted for by the progress of refined letters, of elevated science, and by the immediate influence of the latter, in perfecting the arts of life. Akin to the piety which inspires His servants in different portions of the globe, to worship one Creator, is the devotion of its votaries to one learning. Unambitious of worldly distinctions, and soaring above the vices and passions that degrade our race ; the knee which they refuse to bend to power or to fortune, they, like the Persian, bend to the sun that illumines and fructifies the mind. Honoured and esteemed as well for their devotion as for its object, they are the chosen High Priests of learning who instruct the crowd, and impart the mysteries of science to those destined to perpetuate discovery.

Witness the results. The great engine of modern science, the calculus of NEWTON and of LEIBNITZ, which, at its birth, was possessed by those master spirits only, has since become diffused even as the wealth, that in days of yore, placed the destinies of a nation in the hands of its sovereign, is now the property of all ranks. And as the latter distributed among the masses, has endowed them with the means of ameliorating their own welfare, so has the former originated a thousand minor inventions, steps by which, as by a ladder, it has become the privilege of all to ascend to the higher regions of knowledge. From science, to its applications, the transition is necessary and simple; and art, of which it was erst the hand-maiden, has thus become its messenger to men.

And how, gentlemen, has this been accomplished?—By association. I will not here attempt to show whether or no societies originate inventions; it is sufficient that they preserve discovery, that they engender taste, foster science, hold out the incitements which develope latent talent, and check

retrogression. In fine, that they are the libraries which enfold, and the librarians who reveal the achievements of the dead—the *Areopagites* whose decision establishes the claims of the living.

We see, then, how disciples congregated around the apostle of science, as around an intellectual nucleus. LEIBNITZ, under the sanction of the first Frederick, founds and presides over the academy of Berlin and EULER, is summoned by Catherine to direct and enrich with his learning a similar association in the Russian capital. SIR ISAAC NEWTON is elected President of the Royal Society, which early knew and appreciated his genius, and LAGRANGE, subsequently organises at Turin, a learned body, which is still a living testimony to the vigour of the talent, from which it received its initial impulse. Its votaries thus disciplined into corps, the objects of science became distributed. Here do we see the germ of that department of intellectual pursuits, which, like the division of labour in manufactures, has achieved the greatest and most beneficial results. Soon, memoirs of the transac-

tions of each scientific body enlighten its sister associations and communicate great results to a surprised and delighted world. The simplest branch of human inquiry becomes dignified with the importance of a science. The student of nature learns how to penetrate her secrets, and philosophy arranges and classifies discovery. The works of buried sages are drawn out from the neglected nook, the sublime prophecies of a Bacon and a Galileo become fulfilled, and their doctrines expanded and appreciated. One universal enthusiasm is enkindled throughout Europe — each intelligent bosom burns to join in the crusade against ignorance. Literature and philosophy receive a quickening impulse from science, and all are arrayed beneath its banners. The pride of governments is aroused, and with it, a desire to participate in such ovations. To atone for past oppression and neglect, kings hasten to exalt the votary, and to appreciate the mysteries he unfolds. The higher schools of learning are founded and endowed with the means of progression, and with privileges which render them independent of the troubles of

state. Thus, gushing from a few primitive sources of knowledge, has the placid stream of science swollen into a majestic river ; its waters fertilizing the soil, and its resistless current affording a thousand new and living powers to the arts of life.

With the great effects of these novel impulses all present are familiar. The science which took origin simultaneously in England and in Germany, soon reflected its rays upon the intelligent academies of Paris. These became the first to honour the illustrious of other nations, and to emulate a glorious example. By them prizes were proposed for the solution of important emblems in physical and analytical science, and numerous voices raised in hailing the triumphs of mind and in prayers for their continuance, found an echo throughout all Europe. Astronomy, the primitive object of human research, soon yielded up its secrets to the inquiries of a searching analysis, and the magnificent laws of gravitation served to unfold new and vast proofs of the creative harmony.

While a **HERSCHEL**, a **DELAMBRE**, and a **LAPLACE**, three talents so eminent, so fertile, yet so widely different, mingling thus harmoniously, elevated human intelligence to the stars, and enabled it to read the title-page of the universe, a like fervour impelled others to examine the domains and resources of a less distant and more mutable nature. **CUVIER**, **HUMBOLDT**, and **SIR HUMPHREY DAVY**, through the aid and discipline of science, decyphered the imperfect inscriptions past revolutions had left in the bosom and on the surface of the globe, and by degrees, each one of which, was a great discovery, revealed to its inhabitants the subtle agents that control the material world. "Nature and science," says Cuvier, "may be represented as two vast pictures, of which one should be a copy of the other. Each is partitioned into an infinite number of compartments which though appropriated to themselves by different orders of *Savans*, constitute, nevertheless, one and the same system. But in the picture *nature* presents, each partition is full, and all are linked together, while in the imitative canvass of man,

many are entirely empty, and others display incorrect images which have, at most, a rude resemblance to the original ; in fine, it must be acknowledged, that all the efforts of those who have cultivated the sciences, have tended to reproduce with fidelity a small number only of the designs, shadowed forth by the immense and sublime union of natural existences." Thus astronomy, in which may be traced the first and most perfect affiliation of the practical with the theoretical, has out-distanced its sister branches of scientific discovery. In it *reason* and *analysis* have supplanted the lenses, and calculations of a wondrous, yet imperfect art ; and its portion in the great image of nature is, comparatively, full and perfect.

I have cited the present perfection in astronomy, both to show how much is wanting to render other departments of science as complete, and because the magnificent results obtained by celestial mechanics are alone an encouraging guarantee for the future. They are an earnest that, sooner or later, the minuter mechanism of the world, and the

springs of universal action *must* be revealed to us. Emblems of the immortal destiny of mind, they constitute a lofty poetry of hope, and are the irresistible allurements by which man sees mirrored in the past, the fulfilment of a prophecy, the creative artifice by which he is enticed to prosecute, with untiring ardour, the inquiries of the future. The history of astronomy shows that its prodigious advancement may, in a measure, be attributed to the period of time during which it has lived and flourished — that of its progress alone, fills six quarto volumes, and presents an array of names unequalled in numbers and in splendour in the annals of any other science. By it is afforded a surprising proof of the unknown resources which the exigencies of discovery *may* develope. In aid of its progress it has created engines which, after having laboured with unwearied industry in erecting the column *it* occupies in the great temple, have been in turn summoned to rear the other portions of the edifice. Finally, to astronomy are we indebted for an incontestable proof that our slight progress in the science is the result of physical

causes purely ; for, to an American has been reserved the honour of unfolding the mysteries of the *Mécanique Céleste*, and to our illustrious BOWDITCH must henceforth be given a portion of the glory of LAPLACE.

To enter minutely into the nature and divisions of any one of the great philosophical problems of our age, would but recall to mind some detached science the daily improvements achieved in which, are diffused throughout the world by an enlightened press. The progress of chemistry alone during the present century, is a subject too vast to be grasped within the present hour — what then can be said of botany, of geology, of zoology or of a thousand minor out-shoots from the perennial tree of knowledge? What space have we to contemplate the progress of the arts, the achievements of FRANKLIN, of RITTENHOUSE, of FULTON, or of WHITNEY, in our own clime, and of ARKWRIGHT, of WATT, or of BABBAGE, in Europe. I repeat it, these triumphs of man over matter, are the food of our daily meditations.

The present objects of scientific inquiry, surely surpass their predecessors, and are alike the wonder of all. The five imponderable fluids, light, heat, electricity, galvanism, and magnetism; the subtle spirits of creation, are about being subjected to the dominion of man. Like the slaves of the lamp, they will soon lead him into caverns whose new and vast treasures of knowledge will be revealed to his ravished gaze.

From the contemplation of the universe with an unquailing eye, man has received the impress of its grandeur. He now turns to microscopic investigation. Science has become one universal interrogation of nature, and the magnificent responses of recent days fill the inquiring mind, now with doubt, and now with conviction; with doubt, lest our entire physical knowledge be founded in ignorance of first causes, and with the conviction that such doubts must ere long be resolved.

All Europe, partitioned into associations,—strengthened by royal and legislative munificence—

has laboured with one mind for the advancement of science. Besides the well organized academies of Paris, France founds in her departments ten similar institutions, all of which seek diligently at home and abroad, new sources of enlightened happiness. The *Sorbonne*,* and the *Collège de France*,* choose their professors from among the young and promising; and these, educated by a law of merit in its public schools, in turn reflect lustre upon their country. The Polytechnic, the school of mines, of arts and trades, and of engineering, nourish and develop the zeal and talent of future explorers in the regions of science or of art, and the rewards and dignities of intellectual attainments, rival in the state the honours and emoluments awarded to military glory. Side by side through life in the royal council, the sage and the hero are enshrined after death in the same tomb,† and the nation inscribes over its lofty porch, the dedication of the monument by *a grateful country to its exalted men.*‡

* The two Universities of Paris.

† The *Pantheon*.

‡ *Aux grands Hommes la patrie reconnaissante.*

In Germany, enthusiasm has been more intimately diffused throughout all ranks. The spark which kindled its literature into a blaze lit up also the torch of science. A BLUMENBACH, a GAUSS, and a HUMBOLDT — worthy contemporaries of the scholars, the poets, and the philosophers of their epoch, — inherited the genius of a Leibnitz and of a Euler. The academies of Berlin, of Göttingen, of Leipsic, of Munich, and of Vienna, became the foci of learning, and their transactions the *rendez-vous* of the wise. Proud to imitate, and happy to admire the productions of foreign genius, the German brought into the field of science a patience and a research alike unknown to the practical Briton and to the refining Gaul. The former employed philosophy in aid of invention, and the latter in generalizing the principles of science, while the German has applied invention and science to philosophy, and thus found formulæ for determining the phenomena of an essence far surpassing in its mysterious and expansive power, all other wonders of creation — the human mind.

In England, important results have likewise been obtained, less perhaps in science than in art, less in theory than in practical invention. Its institutions of learning have undergone no essential change; and this may be one of the evil consequences of its conservatism. The calculating machine of Babbage is nevertheless the mechanical wonder of our age. Performing computations of which the length and intricacy have hitherto retarded the progress of science, and indelibly recording and multiplying each result, it has become one of the iron fingers of art, and allows a wider and more varied range to scientific inquiry. Sensible, though late, of the advantages of combination in the pursuit of learning, and, mayhap, ambitious of reviving the intelligent age of *Newton*, *Barrow*, *Halley*, *Flamstead*, *Cotes*, and *Maclaurin*, — the learned of England have for six years past, courteously invited, and hospitably entertained at York, at Oxford, at Cambridge, at Edinburgh, at Dublin, and at Bristol, the learned of all nations. At this annual scientific congress, which is even now in session at Liverpool, the proceedings of the past

year are communicated, the rate of progression ascertained, and the objects of immediate, as well as remote future inquiry laid down and distributed. A convocation of German naturalists was recently held at Stuttgard, and the French Scientific Association which originally met at Poitiers, was assembled during the present month at Metz.

The great schools of the continent are alike open to the stranger and to the citizen. At their portals science beckons unto all to come and drink of the waters of knowledge, and some European governments, satisfied that the intelligence of a country, like the magnet, acquires fresh vigour from the energies it imparts, have endowed the learned with salaries which render them independent of the pecuniary aid of their disciples. Thus, in Paris, may any science be acquired, free of expence to its votary. At its universities are taught and illustrated every branch of experimental philosophy, of natural and of abstract science, of metaphysics, of history, of legislation, and of letters. At the king's library free access may be had to the books

that reveal, and the philologists who explain, the recondite elements of oriental literature ; and the galleries and academies of the fine arts court the visits of the amateur, and the studies of the artist. To the disciples of Esculapius are opened the schools of medicine and the vast and instructive hospitals ; and at the Garden of Plants may be viewed the cognate natural treasures of the world.

Within this latter justly renowned enclosure, there stands upon an acclivity a lofty and magnificent cedar of Lebanon. From its summit, years of scientific glory contemplate the rich and varied surface around. From beneath the salutary shade of its wide-spreading branches, may be heard the lion's roar, the tiger's yell, and the joyous carol of birds of other climes — may be viewed the extensive conservatories which enclose the treasures of the three kingdoms of nature, and the quiet abodes of the accomplished men, who each day draw from these, new and eloquent truths — may be felt the benign, yet elevating influence of the spot. Calm and erect amid the blood-stained victories of the re-

public, the glories of the empire, the reverses of the hundred days, the frailties of the restoration, and the troublous times of the last revolution, this monarch of the mountain seems an enduring emblem of the science which, aspiring to monuments more durable than the arch or the column, and heedless of the turmoils and vanities of the great metropolis, fulfils in this new academe, and by an immutable law, its own high destiny.

While the aspect of the sciences has varied with their progress, the modes of effecting this have remained essentially the same. Each new discovery strengthened the sympathies which linked together the votaries of science, and enhanced, in their eyes, the value of union. But besides the intellectual culture attained and diffused by these collective efforts, a great moral lesson has thus been silently inculcated upon mankind. From appreciating the benefits of knowledge, men have proceeded to love those who impart it, and hence have arisen increased deference and respect for age and experience. Fresh intensity has been added to the

social ties, the affections have become fortified, and a just sense of gratitude towards God, accoupled to the ardour of mental improvement. This gradual amelioration of individual sentiments has spread its kindly influence throughout the masses, and science has inspired them with esteem and affection for their great benefactors.

Such, gentlemen, is the inquiring spirit of the age; the same which a German poet has personified as Titan, the giant, who, not content with his colossal strength, or with having ascertained the laws of celestial harmony, now aspires to scale heaven itself; and to effect this, heaps mountain upon mountain. It has been our fortune to participate but slightly in these exploits of modern intelligence. We have been occupied in rendering habitable and productive the earth around us, and in forming institutions suited to the liberties we enjoy. How we are hereafter to achieve intellectual triumphs which shall worthily succeed our moral victories, is an enigma time alone can unravel. But, that such is to be our future destiny, seems an unavoidable

sequel to the gigantic strides of the arts and inventions among us. Inheriting with the wisdom and experience of by-gone centuries, the advantages of a common language with England, and of sharing in each wholesome impulse of European intelligence, we now enter upon our career of national manhood, with the buoyancy and vigour of youth attempered, yet undiminished by past trials. Giving to these energies a proper direction, the certainty of our future greatness becomes brighter than the most gorgeous visions of the imagination. Science, whilome the companion of the sage and the hidden object of individual devotion, even now seeks among us a permanent abode. It has been the object of this brief sketch to show that *we all are bound to welcome her within these walls.*



LIBRARY OF CONGRESS



0 029 944 892 7